

The Butterflies of South Gujarat

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The term South Gujarat, as used throughout this paper, comprises the Dangs and the districts of Broach and Surat. The Dangs, where the majority of species were collected, consists of a tract of hilly teak and bamboo country south of Tapti River which lies between the Nasik-Khandesh Deccan and the South Gujarat plain. This area has tropical moist deciduous and tropical semi-evergreen plant life with an annual average rainfall of 80 inches. The Dangs forest with its mountain streams, hills, valleys, and plateaux supports a wide variety of flowering plants attractive to many species of butterflies. In this pan-tropical terrain with its seasonal and altitudinal differences the writer between October 1952 and March 1963 has collected thousands of butterflies. Less intensive collecting was done between March 1946 and March 1963 in Surat and Broach districts.

The following is a list of the species collected together with such field notes as are available. The latest work on Indian butterflies is Wynter-Blyth's BUTTERFLIES OF THE INDIAN REGION (1957); where my records appear to add anything to the information already available, I have quoted the distribution as in Wynter-Blyth in parenthesis.

DANAIDAE

Danaus aglea aglea (Cramer) : The Glassy Tiger

Fairly common throughout the year.

(South India to Poona. Himalayas east from Kashmir, Assam, Burma, Bengal.)

Danaus limniace mutina Fruh. : The Blue Tiger

Common throughout the year.

Danaus melissa dravidarum Fruh. : The Dark Blue Tiger

One netted on 18 October 1952 at Ahwa; another on 19 March 1963 at Ahwa.

(Ceylon. South India.)

Danaus genutia Cramer : The Common Tiger
Common throughout the year.

Danaus chrysippus (Linnaeus) : The Plain Tiger
Very common throughout the year.

Euploea core core (Cramer) : The Common Indian Crow
Very common throughout the year.

Euploea crassa kollari Felder : The Brown King Crow
In September and October in South Gujarat. Rare. Uncommon
further south in the Konkan.

SATYRIDAE

Mycalesis perseus (Fabricius) : The Common Bushbrown
Very common throughout the year.

Mycalesis mineus polydecta Cramer : The Dark-brand Bushbrown
From July to October, fairly common. Occasionally at lights
during the south-west monsoon.
(Peninsular India south of Bombay. Madhya Pradesh and Bengal,
Kulu to Assam and Burma.)

Lethe europa ragalva Fruh. : The Bamboo Treebrown
September to December. Rare.

Lethe rohria nilgiriensis Guerin : The Common Treebrown
October to January. Not common.

Ypthima hubneri hubneri Kirby : The Common Fourring
Common throughout the year.

Ypthima baldus Fabricius : The Common Fivering
From July to January only; common.

Ypthima asterope Klug : The Common Threering
Common throughout the year.

Melanitis leda (Drury) : The Common Evening Brown
Common throughout the year. It has wet and dry season forms
and is crepuscular in its habits. Wet season form *determinata*
frequently netted at lights.

NYMPHALIDAE

- Charaxes polyxena imna** Butler : The Tawny Rajah
February to April. Uncommon to rare.
- Charaxes fabius fabius** (Fabricius) : The Black Rajah
In some years fairly common from October to April.
- Eriboea athamas** (Drury) : The Common Nawab
Fairly common from October to April.
- Euthalia garuda** (Moore) : The Baron
Common throughout the year.
- Euthalia evalina laudabilis** Swin. : The Redspot Duke
September and October. Not common.
(S. India.)
- Euthalia nais** (Forster) : The Baronet
Common throughout the year.
- Neptis columella** Cramer : The Short-banded Sailer
February to April. Not common.
- Neptis hylas** Linnaeus : The Common Sailer
Very common throughout the year. It has distinct dry and wet
season forms.
- Neptis jumbah** Moore : The Chestnut-streaked Sailer
One captured on 14 March 1963 at Ahwa in the Surat Dangs.
(Ceylon. S. India. Bengal. Burma.)
- Cyrestis thyodamas indica** Evans : The Common Map
Very rare in South Gujarat.
- Hypolimnas bolina** (Linnaeus) : The Great Eggfly
Common throughout the year.
- Hypolimnas misippus** (Linnaeus) : The Danaid Eggfly
Common throughout the year.
♀ form *inaria*. August and September. Very rare.

Kallima philarchus horsfieldii Kollar : The Blue Oakleaf

Common from February to June; otherwise scarce. In April 1956 I collected forty specimens in two hours in a valley close to the mission bungalow at Ahwa.

(Confined to the western side of south India from Nasik and near Bombay southwards. Not rare from Matheran to Kanara.)

Precis hierta hierta (Fabricius) : The Yellow Pansy

Very common throughout the year. At 9.00 p.m. on 17 February 1963 I caught a female of this species flying around a petromax lamp in our mission bungalow. It is not normally crepuscular nor nocturnal in its habits.

Precis orithyia (Linnaeus) : The Blue Pansy

Very common throughout the year.

Precis lemonias (Linnaeus) : The Lemon Pansy

Very common throughout the year. I have a melanistic example of this species, caught in July 1960 at Ahwa on *Lantana* flowers, in which the ground colour on the upper surface is much darker than usual and the large ocelli on the hindwings are absent.

Precis almana almana (Linnaeus) : The Peacock Pansy

Common throughout the year.

Precis iphita (Cramer) : The Chocolate Pansy

Very common throughout the year.

Vanessa cardui (Linnaeus) : The Painted Lady

Very common throughout the year.

Vanessa indica (Herbst) : The Indian Red Admiral

Very rare in South Gujarat.

(Ceylon. Hills of South India. Coorg. Himalayas as far west as Kashmir, Hills of NE. India, Burma.)

Argynnis hyperbius (Johanssen) : The Indian Fritillary

Very rare in South Gujarat. Recorded on 9 April 1960 at Ahwa.

Atella phalantha (Drury) : The Common Leopard

Very common throughout the year.

Cirrochroa thais (Fabricius) : The Tamil Yeoman

Appearance in South Gujarat probably accidental. The sole specimen was netted on 27 September 1962 at Ahwa on *Lantana* flowers.

(Ceylon. Western Ghats. Coorg. Wynaad. Nilgiris. Palnis.)

Byblia ilithyia (Drury) : The Joker

My only record for South Gujarat is a specimen netted on 19 September 1957 in the mission garden at Ahwa.

Ergolis ariadne (Johanssen) : The Angled Castor

Fairly common throughout the year.

Ergolis merione merione (Cramer) : The Common Castor

Common throughout the year.

ACRAEIDAE

Telchinia violae (Fabricius) : The Tawny Coster

Throughout the year in the Surat Dangs but not common. Fairly common at Broach.

ERYCINIDAE

Libythea lepita lepitoides Moore : The Common Beak

Rare in South Gujarat.

(Ceylon and S. India, rare. Elsewhere common to very common.)¹

Abisara echerius (Stoll) : The Plum Judy

Fairly common throughout the year.

LYCAENIDAE

Spalgis epius (Westwood) : The Apefly

Netted in July and August only; rare.

(Ceylon and S. India.)

¹ Wynter-Blyth does not mention this subspecies. Evans in his IDENTIFICATION OF INDIAN BUTTERFLIES says that this subspecies occurs in Ceylon and S. India and is not rare.—EDS.

Castalius rosimon rosimon (Fabricius) : The Common Pierrot
Fairly common throughout the year.

Castalius caleta decidia (Hewitson) : The Angled Pierrot
Not uncommon. October to March.
(Recorded from the Western Ghats south of Bombay.)

Castalius ethion ethion (Doubleday & Hewitson) : The Banded Blue Pierrot
October and November. Not common.
(Ceylon. S. India. Assam and Burma.)

Tarucus theophrastus indica Evans : The Pointed Pierrot
Fairly common during the winter months.

Tarucus extricatus Butler : The Rounded Pierrot
Common from March to July.

Syntarucus plinius (Fabricius) : The Zebra Blue
Common from November to July.

Azanas ubaldus (Cramer) : The Bright Babul Blue
September and October. Not common.

Azanas uranus Butler : The Dull Babul Blue
November and probably other months. Not common.

Azanas jesous gamra (Lederer) : The African Babul Blue
November and probably other months. Not common.

Neopithceops zalmora (Butler) : The Quaker
Collected on 15 November 1960 and 8 December 1962 at Ahwa.
Rare.
(Ceylon. South India to Bengal. Kumaon to Burma. Andamans.)

Lycaenopsis puspa gisca Fruh. : The Common Hedge Blue
November to February. Not common.

Lycaenopsis albidisca Moore : The Whitedisc Hedge Blue
November, December, and January. Not common.
(Hills of S. India.)

- Chilades laius laius** (Cramer) : The Lime Blue
Common throughout the year.
- Zizeeria putli** Kollar : The Southern Grass Jewel
Common throughout the year.
- Zizeeria maha** Kollar : The Pale Grass Blue
Common from November to July.
- Zizeeria lysimon** Hub. : The Dark Grass Blue
Common from October to April.
- Zizeeria gaika** Trimen : The Tiny Grass Blue
Fairly common from November to April.
- Zizeeria otis** Fabricius : The Lesser Grass Blue
Common from October to April.
- Euchrysops cnejus** (Fabricius) : The Gram Blue
Common from October to April.
- Euchrysops pandava pandava** (Horsfield) : The Plains Cupid
Fairly common throughout the year.
- Catochrysops strabo** (Fabricius) : The Forget-Me-Not
Common throughout the year.
- Lampides boeticus** (Linnaeus) : The Peablu
Very common throughout the year.
- Lycaenesthes lycaenina** Felder : The Pointed Ciliate Blue
March to May in the Surat Dangs. Not common.
- Jamides celeno celeno** Cramer : The Common Cerulean
Common throughout the year.
- Jamides bochus bochus** Cramer : The Dark Cerulean
Very common throughout the year.
- Nacaduba nora nora** Felder : The Common Lineblue
Found throughout the year. Not common.

Curetis thetis (Drury) : The Indian Sunbeam

Fairly common throughout the year.

Curetis acuta dentata Moore : The Angled Sunbeam

Fairly common throughout the year.

Curetis bulis (Doubleday & Hewitson) : The Bright Sunbeam

Fairly common during the monsoon season; however, the dry season form *angulata* is more common than the above from October to April.

(S. India. Pachmarhi.)

Iraota timoleon timoleon (Stoll) : The Silverstreak Blue

Collected only in July, October, and November, rare.

Amblypodia amantes amantes Hewitson : The Large Oakblue

Fairly common from September to March.

Surendra quercetorum Moore : The Common Acacia Blue

Taken only in August and September. Probably rare.

(Ceylon. S. India. Simla Hills to Assam and Burma. S. Bihar.)

Spindasis vulcanus vulcanus Fabricius : The Common Silverline

From July to April only, fairly common.

Spindasis ictis ictis Hewitson : The Common Shot Silverline

From July to April only, fairly common.

Spindasis elima elima Moore : The Scarce Shot Silverline

November and December. Not common.

Spindasis lohita Horsfield : The long-branded Silverline

Taken only in July and November; rare.

(Mussoorie to Assam and Burma. Calcutta. Ceylon and S. India.)

Zesius chrysomallus Hubner : The Redspot

One netted on 15th March 1963 at Ahwa in the Surat Dangs. Apparently rare.

Tajuria cippus cippus (Fabricius) : The Peacock Royal

From March to November only. Not common. Found on *Poinsettia* blossoms.

Rathinda amor (Fabricius) : The Monkey Puzzle

Found in South Gujarat from September to November. Not common.

(. . . up the Western Ghats to Bombay.)

Deudoryx epijarbas epijarbas (Moore) : The Cornelian

November, December and March. Not common.

Virachola isocrates (Fabricius) : The Common Guava Blue

November to March. Not common.

Virachola perse ghela Fruh. : The Large Guava Blue

Rare. 12 November 1960 on *Poinsettia* blossoms at Ahwa.
(Ceylon. S. India.)

Rapala melampus Cramer : The Indian Red Flash

Fairly common from November to April.

PAPILIONIDAE

Polydorus Hector (Linnaeus) : The Crimson Rose

Rare in South Gujarat.

(Common in Bengal, S. Bihar, Orissa, S. India.)

Polydorus aristolochiae aristolochiae (Fabricius) : The Common Rose

Common throughout the year.

Chilasa clytia clytia (Linnaeus) : The Common Mime

From July to September. Uncommon and local.

Papilio polymnestor polymnestor Cramer : The Blue Mormon

Uncommon locally from July to October.

(Ceylon. S. India. Madhya Pradesh. S. Bihar. Bengal. Western Ghats to Bombay. Sikkim.)

On 8 July 1960 a large caterpillar of this species was found eating a pumelo leaf (*Citrus grandis*) in the mission school garden at Mulchond. The larva had a greatly enlarged head and was mainly green in colour. It formed a chrysalis on July 10th. The pupa was attached at one end of the base of the leaf stalk on the underside of a pumelo leaf. The male imago emerged on 30 July 1960, hatching in a box in the author's office at Ahwa.

Occasionally this magnificent butterfly measures nearly six inches from wing tip to wing tip.

Papilio helenus daksha Moore : The Red Helen

One netted on 25 October 1957 at Ahwa. Very rare or accidental in Gujarat.

(Ceylon. Western Ghats. Nilgiris. Palnis. Shevaroyis. Coorg and Bangalore.)

Papilio polytes Linnaeus : The Common Mormon

The male and its three female forms are found in South Gujarat.

The male is very common throughout the year.

♀ form *stichius*—very common throughout the year.

♀ form *romulus*—fairly common throughout the year.

♀ form *cyrus*—very rare.

Papilio demoleus demoleus (Linnaeus) : The Lime Butterfly

Very common throughout the year.

Graphium nomius nomius (Esper) : The Spot Swordtail

Common from February to June; rare in July and August.

Graphium agamemnon agamemnon (Linnaeus) : The Tailed Jay

Very common throughout the year.

Graphium sarpedon teredon Felder : The Common Bluebottle

Rare in September in South Gujarat. More common to the south in the Konkan.

PIERIDAE

Leptosia nina nina (Fabricius) : The Psyche

Some years common from October to March.

Delias eucharis (Drury) : The Common Jezebel

Common throughout the year. Abundant from November to February.

Cepora nerissa (Fabricius) : The Common Gull

Common throughout the year.

Anaphaeis aurota aurota (Fabricius) : The Pioneer

January to May. Not common.

- Appias libythea libythea** (Fabricius) : The Striped Albatross
Throughout the year. Uncommon.
- Appias lycida latifasciata** Moore : The Chocolate Albatross
Throughout the year. Rare.
- Appias albina darada** Felder : The Common Albatross
January to March. Not common.
- Ixias marianne** (Cramer) : The White Orange Tip
Fairly common throughout the year.
- Ixias pyrene** (Linnaeus) : The Yellow Orange Tip
Fairly common throughout the year, but more common in winter.
- Colotis calais** (Cramer) : The Small Salmon Arab
Rare in the Dangs, but common elsewhere in South Gujarat.
♀ form *albina* at Broach. Uncommon.
- Colotis vestalis** (Butler) : The White Arab
Rare in the Dangs, but common elsewhere in South Gujarat.
- Colotis etrida etrida** (Boisduval) : The Little Orange Tip
Uncommon from January to June in the Dangs. Common in
Bulsar, Surat, and Broach.
- Colotis fausta** (Olivier) : The Large Salmon Arab
Rare in the Dangs. Common elsewhere in South Gujarat from
October to April.
- Colotis eucharis** (Fabricius) : The Plain Orange Tip
Rare in the Dangs. Common throughout Broach District and
Surat District, especially in winter months.
- Colotis danae danae** (Fabricius) : The Crimson Tip
Uncommon in the Dangs, but common elsewhere in South Gujarat
from October to April.
- Hebomoia glaucippe australis** Butler : The Great Orange Tip
Only record for the Dangs is in January 1959 at Ahwa. Fairly
common in the Konkan south of Gujarat.

Parenonia valeria hippa Fabricius : The Common Wanderer

Fairly common from October to April.

♀ form *philomela* is occasionally found from October to April.

(Recorded from Assam, Calcutta, Jabalpur, the Nilgiris, and N. Kanara.)

Catopsilia crocale (Cramer) : The Common Emigrant

Abundant throughout the year having two distinct female forms, one white and the other yellow.

Catopsilia pomona (Fabricius) : The Lemon Emigrant

Very common throughout the year.

♀ form *catilla* with purple blotches below is fairly common.

Catopsilia pyranthe (Linnaeus) : The Mottled Emigrant

Found throughout the year, but more common during the monsoon.

Catopsilia florella gnoma (Fabricius) : The African Emigrant

Found throughout the year, but more common from October to April.

C. florella may be only the dry season form of *C. pyranthe*; however, this problem needs more study.

Eurema brigitta (Cramer) : The Small Grass Yellow

Common throughout the year.

Eurema laeta Boisduval : The Spotless Grass Yellow

The wet season form *venata* and the dry season form *laeta* are both very common. Wet season form rarely netted at mercury-vapour lamp; however, it is not normally crepuscular nor nocturnal.

Eurema hecabe (Linnaeus) : The Common Grass Yellow

Abundant throughout the year. Occasionally captured at mercury-vapour lamp in Ahwa and sometimes crepuscular.

Eurema blanda silhetana Wall. : The Three-spot Grass Yellow

Uncommon throughout the year.

HESPERIIDAE

Celaenorrhinus leucocera leucocera (Kollar) : The Common Spotted Flat

During the monsoon. Not common.

- Celaenorrhinus ambareesa** (Moore) : The Malabar Flat
February to May. Not common.
- Coladenia dan dan** (Fabricius) : The Fulvous Pied Flat
During the monsoon season. Rare.
(S. India. Kulu to Assam and Burma.)
- Sarangesa dasahara** (Moore) : The Common Small Flat
Fairly common throughout the year.
- Sarangesa sati** de Nicéville : The Tiny Flat
Common during the monsoon months. According to Wynter-Blyth (p. 464) *S. sati* is now considered a race of *S. purendra*.
- Caprona ransonnetti** (Felder) : The Golden Angle
Throughout the year, the dry season form much paler than the wet season form. Not common.
(S. India to Igatpuri, Kalka and Assam. Burma. Ceylon.)
- Tapena thwaitesi hampsoni** El. & Ed. : The Black Angle
Rare in February and March in the Surat Dangs. Not mentioned by Wynter-Blyth, but rare in south India according to Evans.
- Spialia galba** (Fabricius) : The Indian Skipper
Common throughout the year.
- Chromus alexis alexis** (Fabricius) (= **Hasora chromus** Cramer, according to some authors) : The Common Banded Awl
Abundant throughout the year. Occasionally attracted to lights at night in the bungalow.
- Badamia exclamationis** (Fabricius) : The Brown Awl
Fairly common throughout the year.
- Suastus gremius** (Fabricius) : The Indian Palm Bob
Fairly common in September and October at Waghai, but rare elsewhere.
- Arnetta vindhiana** (Moore) : The Vindhyan Bob
September and October in the Surat Dangs. Not common.
- Matapa aria** (Moore) : The Common Redeye
In some years common from September to January; one taken on

16 March 1963. Usually flies early in the morning and at dusk; however, I have netted it at midday on *Lantana* flowers.
(Ceylon. S. India to Matheran and Calcutta. Dun to Assam and Burma.)

Taractrocera ceramas nicevillei Watson : The Tamil Grass Dart
During the monsoon season. Not common.

Telicota ancilla = **Astychus augias** (Linnaeus), and **A. pythias** (Mabille):
The Pale Palm Dart and The Dark Palm Dart
Common from November to May, especially the Dark form.

Potanthus pseudomaesa cato Evans : The Indian Dart
Common from December to March.

Pelopidas conjuncta Hewitson : The Conjoined Swift
December to March. Not common.

Caltoris kumara Moore : The Blank Swift
Fairly common on *Lantana* bushes and in nullahs during October and November.
(Ceylon. Western Ghats to N. Kanara. Palnis, Nilgiris, Bangalore. and High Wavys. Calcutta. Sikkim to Assam and Burma.)

Pelopidas mathias mathias Fabricius : The Small Branded Swift
Common throughout the year.

Borbo bevani Moore : The Bevan's Swift
Fairly common throughout the year.

Udaspes folus Cramer : The Grass Demon
Fairly common throughout the year.

Iambrix salsala (Moore) : The Chestnut Bob
Fairly common from October to March.
(Ceylon. S. India. Sikkim to Calcutta, Assam and Burma.)

SUMMARY

From March 1946 to March 1963 the writer collected thousands of butterflies in the Dangs and the Broach and Surat districts. In all, one hundred and forty-five species and seven additional female forms were collected. Only in a few cases have the dry and wet

season forms been mentioned. Completeness is not claimed in this report, for additional species and races will no doubt be found or may have been overlooked.

Data on the distribution of the butterflies presented in this paper should help to clarify the range of thirty or more species, races, and rare female forms. Many species and races from south India are now extended considerably north of Bombay. From this study it is clear that South Gujarat has a very rich butterfly fauna.

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